everywhere found. The real cause of this sudden disappearance has been found to be a contagious bacterial disease whose rapid dissemination is favored by wet weather and by the crowding of the insects into restricted areas as the food supply decreases. In this case the disease is left wholly to spontaneous development, but it is reasonable to suppose that were the disease producing bacteria artificially cultivated and multiplied, which is readily done in properly equipped laboratories, and held as a magazine to supply the germs as soon as the first insects are seen, the pests might be swept away, at a merely nominal cost, at the beginning instead of at the end of their destructive career. This is not all theory! In the United States excellent results against the clinch bug have been obtained in Kansas, Illinois and other states. In Europe very satisfactory results have been obtained in combatting the "white grub" (*Melolantha vulgaris*), by means of the fungus, *Botrytis tenella and B. bassiana.* In this country the most satisfactory results have been obtained from *Sporotrichinm densum* and *Empursa,* several sp ecies.

This method of combatting noxious insects is now attracting widespread attention from German and French scientists and promises much for the future.

## LETTERS TO THE EDITOR.

***Correspondents are requested to be as brief as possible. The writer's name is in all cases required as a proof of good faith.

On request in advance, one hundred copies of the number containing his communication will be furnished free to any correspondent.

The editor will be glad to publish any queries consonant with the character of the journal.

### Inductive Psychology.

I WISH to thank you for your appreciative words and criticisms of my "Inductive Psychology," which was hastily prepared for private use rather than to stand the test of criticism for general circulation; I am pleased that more defects are not at once discovered. I think, however, a little explanation from me is necessary upon one point. In writing every sentence of the book my principal question was, what experience of the pupil will this appeal to? what thoughts and observations will it suggest? and not, how can I most logically state these truths so as to completely cover the subject? The aim is not a complete treatment of the science, but an *introduction* to it that shall give the pupil psychological knowledge, power and vocabulary that will enable him to continue the study in both living subjects and books. To such an extent is this true that inferences as to what portions of psychology I value most cannot be correctly made, for my principle of selection was not scientific value and importance but pedagogical value to the pupil at this stage of the study.

Now, Mr. Editor, however much you may disagree with my use of the word "inductive," if you will lay aside the expectations that the word "inductive" in the title aroused in your mind, you cannot but see that the book is pedagogically essentially different in method from any other text-book on psychology. I feel as if explanation on this point is due to myself; for if the book is not different in method of presentation from other psychologies, I have no excuse for writing it. The following, however, from a teacher of psychology, confirms me in the belief that I have such an excuse. "The book is the best I know of from the *teacher's* standpoint. It illustrates a method of treating the subject which I find in no other book. So far as I know, most text-books have been elaborated without regard to the pedagogics of the subject, but only the logical and scientific arrangement of the facts enumerated; but I feel that this cannot be said of yours."

E. A. KIRKPATRICK.

Winona, Minn., Sept. 25, 1893.

### The Sounds of R.

As Mr. Melville Bell complains, in your October number, that the sounds of R have been treated unscientifically in my "Introduction to Phonetics," (Sonnenschein, London, and Macmillan, New York, 1891), I beg to observe that the difference between us arises from the difference in the facts observed by each.

In my pronunciation, for instance, and in that of cultivated English people of the present day, his ear would, I am sure, observe no difference between *alms* and *arms*, or between *laud* and *lord.*

In my treatment of the *r* sounds in English, I am supported by the evidence of all competent observers of the best English spoken in the south of England in the present day, and the leading phoneticians are also agreed in regarding this as standard English. I refer to such men as Dr. Sweet, Prof. Johan Storm, of Christiania, and Prof. Victor, of Marburg.

If I were making a study of American English it is probable that my observations would be in accord with those of Mr. Melville Bell. LAURA SOAMES.

Brighton, England.

### The Absence of Air from the Moon.

SEEING in the journal *Nature,* of London, date August 31, 1893, the announcement of a paper entitled "The Moon,s Atmosphere and the Kinetic Theory of Gasses," to be read next week at the meeting of the British Association at Nottingham by the author, Mr. G. H. Bryan; and since this subject was treated by me in *Nature,* Nov. 7, 1878 (15 years ago), I wrote to the author, Mr. G. H. Bryan, in reference to this. He has informed me to-day by post that this subject was dealt with in your journal, *Science,* of Feb. 24 last by Sir Robert Ball, who sent his communication to you as original, although Mr. Bryan considers it "identical in substance" with my letter in *Nature* (above mentioned) entitled "A question Raised by the Observed Absence of an Atmosphere in the Moon " (*loc. cit. sup.*)

As Sir Robert Ball makes no mention in your journal of my letter (in *Nature*). I merely wish to claim just priority here for the theory as mine and not his; since it is discussed as his—Sir Robert Ball's—in subsequent numbers of *Science,* such as that for August 18, 1893, in a paper by Prof. Liveing, of Cambridge, England, who suggests a further application of the theory in an article entitled "The Aemosphere of Stellar Space." To make a reclaim is somewhat of a task, and it would be fitting if an author's work were voluntarily recognized without his incentive; but I cannot do otherwise under the circumstances than mention the matter to you in this letter. Mr. Bryan informs me that his paper deals with "the bearing of statistical calculations on the theory," and he makes "no claim to originality except in the numerical results arrived at."

There may doubtless have been some advantage in Sir Robert Ball treating of the theory in question in your journal; but I am surprised at his not mentioning my name in connection with the theory.

S. TOLVER PRESTON.

Hamburgh, Germany, Sept. 9.

### Fossils of the Bridgeport Quarries.

ONE interested in geology, while looking over the fine exhibit of Ward's Natural Science Establishment in the Anthropological building at the World's Fair, and also the geological exhibit in the Government building will notice that the finest crinoids and other fossils of the upper Silurian, Niagara Terrane, are labeled "Bridgeport, Ill." Looking up Bridgeport on the map, myself and friend found it to be only a portion of Chicago, situated